UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
WASHINGTON, JAMARES

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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *25 May 2007*.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.   \

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *6,7,12,15-23 and 25-30* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *6,7,12,15-23 and 25-30* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *30 January 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☒ All   b) ☐ Some * c) ☐ None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
      Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
      Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendments and response received on June 7, 2007 have been entered.

Claims 6, 7, 12, 15-23, and 25-30 are pending. Claims 1-5, 8-11, 13, 14, 24, and 31-33 having

been canceled without prejudice or disclaimer and claims 6, 7, 12, 15-20, and 28-30 having been

amended. Applicant's newly amended claims, specification, and arguments are addressed

hereinbelow.

Claim Objections

2.   Regarding claim 28, applicant has corrected the minor informality therefore examiner

withdraws objection.

Claim Rejections - 35 USC § 101

3.   Regarding claim 30, amendment distinctly points out statutory subject matter in which

"A computer readable storage medium encoded with instructions..." has been claimed. In light

of the newly amended claim, examiner withdraws rejection.

4.   Regarding claims 31-33, rejection is moot in view of cancellation.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 6, 7, 12, 15-19, 21-23, 25-27, and 30 are rejected under 35 U.S.C. 102(e) as being

anticipated by Toshimi Yamamura (US 6981134 B2).

Regarding claim 6, Yamamura discloses an image processing control method ("...the

invention provides a processor processing method suitable for a processor system, wherein the

processor system comprises..." at column 2 line 59) that realizes a function of image processing

by downloading a program and data to an image processing unit ("The programs and the

parameters corresponding to each process request from the "system processor external" (host

computer) are transferred from the ROM to the memory unit of the DSP..." at column 3 line 1)

based on an information from an operating unit, comprising:

converting the information from the operating unit into an internal variable based on a

request for controlling image processing from a main control software ("...conversions related to

the process request are performed by the operation-to-program converting device 233..." at

column 18 line 4);

determining, based on a status of previously acquired resource and current process

information, a resource that has to be acquired to make a response to a request for the resource

("The control management 232 transmits the generated resource X to the resource acquisition

device 236 to perform a resource acquisition request" column 18 line 21);

determining whether the process is executable with the resource requested ("The resource

acquisition device 236 compares it to the past resource group that device 236 has downloaded to

determine whether it is possible to get the resource X..." at column 18 line 23);

converting the internal variable, upon determining that the process is executable with the

resource requested, into detailed information required for downloading the program and the data

("If the acquisition result is OK, the control management 232 asks the download device 237 to

perform a download request. The download device 237 then downloads a source code..." at

column 18 line 27);

converting, by a plurality of detailed level converting management units ("In the process

converting table shown in Fig. 13, the request type is represented by an index that is written to a

program combination dividing a large request category (the job type)...a variety of program

combinations can be used, such as the dither process, the gamma process, the process using a

smoothing filter etc." at column 12 line 51. Software must divide the process request into the

plurality of requested processes for the input image to match each requested process with the

processing units designed to carry out the specific process.), the detailed information into a

plurality of parameters corresponding to the information from the operating unit (Col. 3 lines 42-

60. Determination of which programs and parameters, among the plurality of programs and

parameters, are needed for the processing of the data is made by comparing different aspects of

the request (filtering, dither processing, smoothing etc) to the different programs and parameters

located in ROM. Therefore, the detailed information must be broken down into the individual

processes by the software to determine which processes from the DSP will be used.);

comparing, by a plurality of download setting request-making units (Col. 3 lines 43-45.

Software implemented method in which the software determines the programs and parameters

needed from ROM by comparing the requests with past requests), each individual parameter to

only a corresponding previous setting for the individual parameter (Col. 3 lines 43-45.

Comparing each aspect of the request to past requests); and

downloading only parameters with changed settings to the image processing unit based

on a request for executing download ("...determining whether each coming process request from

system processor external is consistent with past process requests; distributing and transferring

required different programs and required different parameters from the ROM to the memory unit

of the DSP and a register unit of the processor unit to process the coming request by referring to

the table if the coming process request is not consistent with the past process request" at column

3 line 43).

Regarding claim 7, Yamamura discloses an apparatus for controlling image processing

("The invention further provides a processor system..." at column 4 line 66) comprising:

an image processing unit that realizes a function of image processing by downloading a

program and data ("The DSP further comprises a data input device for inputting the data; a RAM

for storing the programs and parameters transferred from the CPU; a processing device..." at

column 5 line 14);

a first converting unit that converts information from an operating unit into information

for downloading the program and the data to the image processing unit ("...The resource

generating/setting device 235 then generates the resources (programs to be downloaded and their

related information or control messages..." at column 18 line 16); and

a downloading unit including a translating unit that translates the information from the

operating unit into information recognized by the first converting unit ("The download device

237 then downloads a source code to the DSP" at column 18 line 29),

a second converting unit that converts information translated by the translating unit into

detailed information for downloading the program and the data to the image processing unit

("The download device 237 then downloads a source code (e.g. detailed information) to the DSP

238" at column 18 line 29), and

a download request unit, including a plurality of detailed level converting management

units and a plurality of download setting request-making units (see rejection of claim 6 above),

wherein

the downloading unit converts the detailed information into a plurality of parameters

corresponding to the information from the operating unit (See rejection of claim 6 above),

the downloading unit compares each individual parameter to only a corresponding

previous setting for the individual parameter (See rejection of claim 6 above), and

the downloading unit makes a request for downloading only parameters with changed

settings to the image processing unit (See rejection of claim 6 above. In computer implemented

methods, requests are made through software code structure when downloading information. *If,

then statements*).

Regarding claim 12, Yamamura discloses the apparatus as rejected in claim 7 above,

wherein the translating unit performs a central management of the information from the

operating unit ("The operation-to-program converting device 233 interprets the contents of the

process request 231 and looks up the program contents to be used from the process converting

table 234" at column 18 line 6).

Regarding claim 15, Yamamura discloses the apparatus as rejected in claim 7 above,

wherein the download request unit includes an information table for managing the detailed

information (Fig. 23 "Past Resource Group vs. Resource X" comparison); and the download

request unit determines the program and the data to be downloaded to the image processing unit

based on the information table ("If the acquisition result is OK, the control management 232

asks..." at column 18 line 27).

Regarding claim 16, Yamamura discloses the apparatus as rejected in claim 7 above,

further comprising a common interface that is determined for each image processing ("The

process request 231 is first transmitted to the control management 232" at column 17 line 66),

wherein the translating unit transmits the information translated to the download request unit via the common interface (Fig. 23).

Regarding claim 17, Yamamura discloses the apparatus as rejected in claim 7 above, wherein the second converting unit includes a conversion table composed of request levels from he operating unit and corresponding combination of the program and the data to be downloaded ("Fig. 23 "Past Resource Group vs. Resource X" comparison"); and the second converting unit determines the detailed information based on the conversion table("If the acquisition result is OK, the control management 232 asks the download device 237 to perform a download request..." at column 18 line 27).

Regarding claim 18, Yamamura discloses the apparatus as rejected in claim 7 above, wherein the translating unit, the second converting unit, and the download request unit are managed for each image processing ("As the process request A-1 is finished, the memory is released. Then, the programs Corresponding to the process request B-1 are acquired (downloaded)..." at column 17 line 29). Since the eighth embodiment describes the processor system or the processing method for the processor system in a middleware manner, the portions repeated in the first to the seventh embodiments are included.

Regarding claim 19, Yamamura discloses the apparatus performing the method for controlling image processing as rejected in claim 6 above.

Regarding claim 21, Yamamura discloses the apparatus as rejected in claim 19 above,

wherein the request for the single execution is made from an instruction from the operating unit

via a control unit that is provided at a preceding stage of the apparatus ("...acquiring the data

from a plurality of input interfaces respectively..." at column 3 line 16).

Regarding claim 22, Yamamura discloses the apparatus as rejected in claim 19 above,

wherein the resource managing unit determines whether to perform an image processing control

based on a status of current resources reserved ("The resource acquisition• device 236 compares

the past resource group owned by the resource acquisition device 236 before and the resource X

passed from the control management 232, to examine whether the contents are the same. When

the resource X can be used by reusing the resource 3, the control management 232 first asks the

resource acquisition device..." at column 18 line 38).

Regarding claim 23, Yamamura discloses the apparatus as rejected in claim 19 above

wherein the resource managing unit determines a processing capability Of the image processing

unit that has the resource, and switches over the service to be provided according to the

processing capability determined ("When the resource X can be used by reusing the resource 3,

the control management 232 abandons the resource X, and the resource 3 is downloaded as an

object of the process request" at column 18 line 42).

Regarding claim 25, Yamamura discloses the apparatus as rejected in claim 19 above

wherein the downloading unit is provided for every image-processing unit (Fig. 51 numeral 10

provided for both DSP 31a and DSP 31b).

Regarding claim 26, Yamamura discloses the apparatus as rejected in claim 19 above

wherein the image-processing unit is a digital signal processor (Fig. 23 numeral 238).

Regarding claim 27, Yamamura discloses the apparatus as rejected in claim 19 above

wherein the image-processing unit is an image-processing device ("...in consideration of

applying the processor system to the image processing apparatus..." at column 17 line 9).

Regarding claim 30, Yamamura discloses a computer readable storage medium encoded

with instructions ("...describes the operations of the host programs in the CPU, and particularly,

the software configuration..." at column 17 line 56), which when executed by a computer, cause

the computer to implement the method as rejected in claim 6 above.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 20, 28, and 29 rejected under 35 U.S.C. 103(a) as being unpatentable over

Yamamura in view of Masahito Yamazaki (US 6785727 B1).

        Regarding claim 20, Yamamura discloses the apparatus as described in claim 19 rejection

above, wherein the request managing unit receives requests for setting parameters for image

processing ("When the control management 232 receives a response from the operation-to-

program converting device 233, the control management 232 controls the resource

generating/setting device 235 to generate resources" at column 18 line 13), requests for

executing the image processing ("The resource acquisition device 236 compares it to the past

resource group that device 236 has downloaded to determine whether it is possible to get the

resource X, and then returns a result to the control management 232..." at column 18 line 23),

and transmits one of the requests to other units ("If the acquisition result is OK, the control

management 232 asks the download device 237 to perform a download request..." at column 18

line 27).

        However, Yamamura fails to teach the apparatus' management unit receiving a request

for ending the image processing, and canceling the image processing.

        Yamazaki discloses, in the same field of endeavor of controlling image processing

performed by an image processing apparatus wherein the "request managing unit" receives a

request to end the image processing ("When the I/F driver 1116 serving as an input unit 18

receives any data from the host computer 2000 (s1301), the logical channel controller 1108

(request managing unit of this invention) and job preprocessor 1110 successively analyze the

commands received..." at column 18 line 27 "...the logic channel controller 1108 checks whether

an analyzed command is a job end packet..." at column 18 line 32) and a request to cancel image

processing ("When a user applies a job control (cancel, suspension...) to a certain job...A job

control command corresponding to the selected job control is generated by the utility 1105, job

packeted by the logic channel controller 1106...and transmitted to the image processor 1000" at

column 22 line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to incorporate the end and cancel request sent to the logic channel controller of

Yamazaki to the requests received by the request management unit of Yamamura in order for the

processor of Yamamura to realize these processes. If the requests are not received, the processes

will not be realized and carried out by the processor.

Regarding claim 28, Yamamura discloses the apparatus as rejected in claim 27 above.

However, Yamamura fails to teach the image-processing device including a scanner or a

printer.

Yamazaki teaches, in the same field of endeavor, an image-processing device including a

printer ("Fig. 1 is a longitudinal sectional view showing an internal configuration of a laser-beam

printer as an example of an image processor to which the present invention can be applied..." at

column 2 line 24).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to utilize the printer as taught by Yamazaki included in the image processing device to

create a hardcopy of an output image after processing because hard copies are portable and easily

annotated.

Regarding claim 29, Yamamura discloses an image forming apparatus ("...in consideration of applying the processor system to the image processing apparatus" at column 17 line 9) comprising the image processing control apparatus of claim 28 above.

Response to Arguments

Applicant's arguments with respect to claim 6 have been considered but are moot in view of the new ground(s) of rejection.

Summary of Remarks: Regarding the argument that Yamamura does not disclose or suggest "comparing, by a plurality of download setting request-making units, each individual parameter to only a corresponding previous setting for the individual parameter," as recited in amended Claim 6.

Instead, Yamamura describes that the generated resource X is compared to a past resource group which includes multiple resources, and not just a single resource corresponding to the generated resource X. Therefore, it is respectfully submitted that Yamamura does not disclose or suggest all of the features recited in amended Claim 6. Thus, it is respectfully requested that the outstanding rejection of Claim 6 as anticipated by Yamamura be withdrawn.

Examiner's Response: Yamamura discloses the claimed subject matter in newly rejected claim 6 wherein the programs and parameters needed to process each "aspect" of the process request are chosen accordingly and sent to respective memory slot location for execution

if the process request is not already present from a previous request. (See rejection of claim 6 above)

Independent claims 7, 19, 29, and 30 (and all dependent claims) while directed to alternative embodiments, contain features similar to those discussed above with respect to claim 6 and are therefore rejected on the same grounds.

Claims 20 and 28 are dependent from claim 19 and are thus rejected on the same grounds. Claim 29 recites similar features as claim 19 and is thus rejected on the same grounds. Yamazaki was merely brought in as a secondary teaching to teach a printer being a well known image processing device in the art of image processing.

Conclusion

1.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
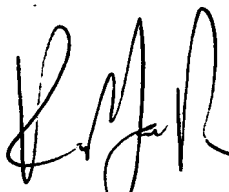
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamares Washington whose telephone number is (571) 270-1585. The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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